METHOD FOR MANUFACTURING SUPERELASTIC β TITANIUM ARTICLES AND THE ARTICLES DERIVED THEREFROM

ABSTRACT

An article is manufactured from a composition comprising about 8 to about 10 wt% molybdenum, about 2.8 to about 6 wt% aluminum, up to about 2 wt% chromium, up to about 2 wt% vanadium, up to about 4 wt% niobium, with the balance being titanium, wherein the weight percents are based on the total weight of the alloy composition. An article is manufactured by a method comprising forming a shape from a composition comprising about 8 to about 10 wt% molybdenum, about 2.8 to about 6 wt% aluminum, up to about 2 wt% chromium, up to about 2 wt% vanadium, up to about 4 wt% niobium, with the balance being titanium, wherein the weight percents are based on the total weight of the alloy composition; cold working the shape; and heat treating the shape.